

CLUSTAL W (1.82) multiple sequence alignment

Mus_musculus	-----ATGCTCCTTTCGGTGCCGCTCCTGCTTGGCCT	32
Ratus_norvegicus	-----ATGCTCCTTTCGGTGCCGCTCCTGCTTGGCCT	32
Homo_sapiens	-----ATGCTGCTATCCGTGCCGTTGCTGCTCGGCCT	32
Oryctolagus_cuniculus	-----ATGCTGCTCCCTGTGCCGCTGCTCGGCCT	32
Mus_musculus	CCTCGGCCTGGCCGCCGAGACCCCTGCCATCTATTCAAAGAGCAGTTCT	82
Ratus_norvegicus	CCTCGGCCTGGCTGCCGAGACCCCTGCCATCTATTCAAAGAGCAGTTCT	82
Homo_sapiens	CCTCGGCCTGGCCGTCGCCGAGCCTGCCCTACTTCAGGAGCAGTTTC	82
Oryctolagus_cuniculus	GCTCGGCCTGGCCGCCGAGCCCTGCGTCAAGGAGCAGTTTC	82
Mus_musculus	TGGACGGAGATGCTGGACCAACCGCTGGGTCGAATCAAACATAAG	129
Ratus_norvegicus	TGGACGGAGATGCTGGACCAACCGCTGGGTCGAATCAAACATAAG	129
Homo_sapiens	TGGACGGAGACGGGTGGACTTCCGCTGGATCGAATCAAACACAAG	129
Oryctolagus_cuniculus	TGGACGGAGATGGGTGGACCGAGCGCTGGATCGAATCAAACACAAG	129
Mus_musculus	TCCGATTTGGCAAATTGTCCTCAGTTCTGGCAAATTACGG	173
Ratus_norvegicus	TCTGATTTGGCAAATTGTCCTCAGTTCTGGCAAATTACGG	173
Homo_sapiens	TCAGATTTGGCAAATTGTCCTCAGTTCCGGCAAGTTACGG	173
Oryctolagus_cuniculus	TCCGATTTGGCAAATTGTCCTCAGTTCCGGCAAGTTACGG	173
Mus_musculus	GGACCTGGAGAAGGATAAAGGGTTGCAGACAAGCCAAGATGCCGATTTT	223
Ratus_norvegicus	GGACCAGGAGAAGGATAAAGGGTTGCAGACAAGCCAAGATGCCGATTTT	223
Homo_sapiens	TGACGAGGAGAAAGATAAAGGTTTGCAAGACAAGCCAGGATGCACGCTTTT	223
Oryctolagus_cuniculus	CGATCAGGAGAAAGATAAAGGGCTGCAGACCAGCCAGGACGCCGCTTCT	223
Euglena		
Mus_musculus	ACGCCTGTCCGCCAATTGAAACCCCTCAGCAACAAGGCCAGACA	270
Ratus_norvegicus	ACGCCTGTCCGCCAGATTGAAACCCCTCAGCAACAAGGCCAGACA	270
Homo_sapiens	ATGCTCTGTCGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACG	270
Oryctolagus_cuniculus	ACGCCCTGTCCGCCGATTGAGCCGTTAGCAACAAGGCCAGCCA	270
Mus_musculus	CTGGTGGTACAGTCACCGTAAGCATGAGCAGAATATGACTGTGGGG	320
Ratus_norvegicus	CTGGTGGTACAGTCACCGTAAGCATGAGCAGAATATGACTGTGGGG	320
Homo_sapiens	CTGGTGGTGCAGTCACCGTAAGCATGAGCAGAACATGACTGTGGGG	320
Oryctolagus_cuniculus	CTGGTGGTGCAGTCACCGTAAGCATGAGCAGAACATTGACTGCCGGGG	320
Mus_musculus	CGGCTACGTGAAGCTGTTCCGAGTGGCTGGACAGAAGGACATGCATG	370
Ratus_norvegicus	CGGCTACGTGAAGCTGTTCCGGTGGCTGGACAGAAGGACATGCATG	370
Homo_sapiens	CGGCTATGTGAAGCTGTTCTAACATAGTTGGACAGACAGACATGCACG	370
Oryctolagus_cuniculus	CGGCTACGTGAAGCTGTTCCGGCCGCTGGACAGAAGGACATGCACG	370
Mus_musculus	GAGACTCAGAATATAACATCATGTTGGTCCGGACATCTGCGGTCTGGC	420
Ratus_norvegicus	GAGACTCAGAATATAACATCATGTTGGTCCGGACATCTGCGGTCTGGC	420
Homo_sapiens	GAGACTCAGAATACAACATCATGTTGGTCCCGACATCTGTGGCCTGGC	420
Oryctolagus_cuniculus	GGGACTCTGAGTACAACATCATGTTGGTCTGACATCTGTGGCCCCGGC	420
Mus_musculus	ACCAAGAAGGTTCATGTCATCTTAACTACAAGGGCAAGAATGTGCTGAT	470
Ratus_norvegicus	ACCAAGAAGGTTCATGTCATCTTAACTACAAGGGCAAGAACGTGCTGAT	470
Homo_sapiens	ACCAAGAAGGTTCATGTCATCTTAACTACAAGGGCAAGAACGTGCTGAT	470
Oryctolagus_cuniculus	ACCAAGAAGGTTCACGTATCTTAACTACAAGGGCAAGAACGTGCTGAT	470
Mus_musculus	CAACAAGGATATCCGGTGTAAAGGATGATGAATTCACACACCTACACAC	520
Ratus_norvegicus	CAACAAGGATATCCGGTGTAAAGGATGATGAATTACACATCTACACGC	520
Homo_sapiens	CAACAAGGACATCCGTTGCAAGGATGATGAGTTACACACCTGTACACAC	520
Oryctolagus_cuniculus	CAACAAGGACATCCGTTGCAAGGACGAGGTTCACACACCTGTACACGC	520
Mus_musculus	TGATTGTGCGGCCAGACAACACCTATGAGGTGAAAATTGACAACAGCCAG	570
Ratus_norvegicus	TGATTGTGCGGCCAGACAACACCTACGAGGTGAAAATTGACAACAGCCAG	570
Homo_sapiens	TGATTGTGCGGCCAGACAACACCTATGAGGTGAAAGATTGACAACAGCCAG	570

Oryctolagus_cuniculus	TGATCGTGC GGCCGGACAACACGTATGAGGTGAAGATTGACAACAGCCAG 570
Mus_musculus	GTGGAGTCAGGCTCCTTGGAGGATGATTGGGACTTCTGCCACCCAAGAA 620
Ratus_norvegicus	GTGGAGTCGGCTCCTTGGAGGATGATTGGGACTTCTGCCGCCAAGAA 620
Homo_sapiens	GTGGAGTCGGCTCCTTGGAGGACGATTGGGACTTCTGCCACCCAAGAA 620
Oryctolagus_cuniculus	GTGGAGTCGGCTCCTTGGAGGATGACTGGGACTTCTACCCCCCAAGAA 620
Mus_musculus	GATAAAGGACCCTGATGCTGCCAACGCCAGACTGGGATGAACGAGCCA 670
Ratus_norvegicus	GATTAAGGATCCTGACGCTGCCAACGCCAGACTGGGATGAACGAGCCA 670
Homo_sapiens	GATAAAGGATCCTGATGCTTCAAACCGAACGACTGGGATGAGCGGGCCA 670
Oryctolagus_cuniculus	GATAAAGGACCCAGATGCCCTCGAACGCTGAAGACTGGGACGAGCGGGCCA 670
Mus_musculus	AGATCGATGACCCACAGATTCCAAGCCTGAGGACTGGGACAAGCCA 717
Ratus_norvegicus	AGATTGATGACCCACAGATTCCAAGCCTGAGGACTGGGACAAGCCA 717
Homo_sapiens	AGATCGATGATCCCACAGACTCCAAGCCTGAGGACTGGGACAAGCCC 717
Oryctolagus_cuniculus	AGATCGACGACCCACGGACTCCAAGCCCAGGGACTGGGACAAGCCC 717
Mus_musculus	GAGCACATCCCTGACCCCTGATGCTAAGAACGCTGAGGACTGGGATGAAGA 767
Ratus_norvegicus	GAGCACATCCCTGACCCCTGATGCTAAGAACGCTGAGGACTGGGACGAAGA 767
Homo_sapiens	GAGCATATCCCTGACCCCTGATGCTAAGAACGCCAGGGACTGGGATGAAGA 767
Oryctolagus_cuniculus	GAGCACATCCCCGACCCGGACCGAAGAACGCCGAAGACTGGGACGAAGA 767
Mus_musculus	GATGGATGGAGACTGGGACCAACCAAGTGAATTCAAATCCTGAATACAAGG 817
Ratus_norvegicus	GATGGATGGAGACTGGGACCAACCAAGTGAATTCAAATCCTGAATACAAGG 817
Homo_sapiens	GATGGACGGAGACTGGGACCCCCAGTGAATTCAAGCCTGAGTACAAGG 817
Oryctolagus_cuniculus	AATGGACGGAGACTGGGAGGCCCGGTGATTCAAGAACCCGAGTACAAGG 817
Mus_musculus	GCGAGTGGAAACCAACGTCAAATTGACAACCCAGATTACAAGGGTACCTGG 867
Ratus_norvegicus	GCGAATGGAAGCCACGTCAAATTGACAACCCAGATTACAAGGGTACCTGG 867
Homo_sapiens	GTGAGTGGAAAGCCCGGGCAGATCGACAACCCAGATTACAAGGGCACTTGG 867
Oryctolagus_cuniculus	GTGAGTGGAAAGCCCGGGCAGATCGACAACCCGATTACAAGGCACCTGG 867
Mus_musculus	ATACACCCAGAAATTGACAACCCCTGAATACTCCCCCGATGCAAATATCTA 917
Ratus_norvegicus	ATACACCCAGAGATTGACAATCCTGAATACTCCCCCGATGCGAAATATCTA 917
Homo_sapiens	ATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCGATCCCAGTATCTA 917
Oryctolagus_cuniculus	ATCCACCCCGAAATCGACAACCCCGAGTACTCGCCCGACGCTAACATCTA 917
Mus_musculus	TGCCTATGATAGTTTGCTGACTGGGCTTAGATCTCTGGCAGGTCAAGT 967
Ratus_norvegicus	TGCCTATGATAGTTTGCTGACTGGGCTTAGACCTCTGGCAGGTCAAGT 967
Homo_sapiens	TGCCTATGATAACTTGGCGTCTGGGCTTGGACCTCTGGCAGGTCAAGT 967
Oryctolagus_cuniculus	TGCCTACGACAGCTTGGCGTCTGGACCTCTGGCAGGTCAAGT 967
Mus_musculus	CTGGGACAATCTTGACAATTCTCATACCAATGATGAGGCCTATGCA 1017
Ratus_norvegicus	CTGGCACAATTGGACAATTCTCATACCAATGATGAGGCCTATGCA 1017
Homo_sapiens	CTGGCACCATCTTGACAATTCTCATACCAACGATGAGGCATACGCT 1017
Oryctolagus_cuniculus	CGGGCACCATCTCGACAATTCTCATACCAACGATGAGGCACGCTACGCA 1017
Mus_musculus	GAGGAGTTGGCAATGAGACGCTGGGCTTAGACCAAGGCTGAGAGAAC 1067
Ratus_norvegicus	GAGGAGTTGGCAATGAGACGCTGGGCTTAGACCAAGGCTGAGAGAAC 1067
Homo_sapiens	GAGGAGTTGGCAACGAGACGCTGGGCGTAACAAAGGCAGCAGAGAAC 1067
Oryctolagus_cuniculus	GAGGAGTTGGCAACGAGACGCTGGGCGTCAACAGACGGCCGAGAAC 1067
Mus_musculus	GATGAAGGACAAGCAGGATGAGGAGCAGAGGCTTAAGGAAGAAGAAGG 1117
Ratus_norvegicus	GATGAAGGACAAGCAGGATGAGGAGCAGAGGCTTAAGGAAGAAGAAG 1117
Homo_sapiens	AATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAG 1117
Oryctolagus_cuniculus	GATGAAAAGACAAGCAGGACGAGGAGCAGCGCTGAAGGAGGAGGAGG 1117
Mus_musculus	ACAAGAAGCGTAAAGAGGAAGAAGAAGCTGAGGA---TAAAGAGGATGAT 1164
Ratus_norvegicus	ACAAGAAGCGTAAAGAGGAAGAGGAGGCCGAGGA---TAAAGAGGATGAG 1164
Homo_sapiens	ACAAGAAACGCAAAGAGGAGGAGGAGGAGGAGGA---CAAGGAGGATGAT 1164
Oryctolagus_cuniculus	AGAAGAAGCGGAAGGAGGAGGAGGAGGAGGCCGAGGAGGACGAGGAGGACAAG 1167

Mus\_musculus GATGACAGAGATGAAGATGAGGACGAAGAAGATGAGAAGGGAGGAAGATGA 1214  
Ratus\_norvegicus GATGACAGAGATGAAGATGAAGAGGATGAGAAGGAAGAAGATGA 1214  
Homo\_sapiens GAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGGAAGATGA 1214  
Oryctolagus\_cuniculus GACGACAAGGAGGACGAGGATGAGGACGAGGAGGACAAGGACGAGGAGGA 1217

Mus\_musculus GGAAGAAT---CCCTGGCCAAGCCAAGGATGAGCTGTAG 1251  
Ratus\_norvegicus GGAGGATG---CCACTGGCCAAGCCAAGGATGAGCTGTAG 1251  
Homo\_sapiens GGAGGAAGATGTCCCCGGCCAGGCCAAGGCCAAGGACGAGCTGTAG 1254  
Oryctolagus\_cuniculus GGAGGAGGCAGGCCAGGCCAAGGCCAAGGACGAGCTGTAG 1257